October 14, 2011

U.S. Environmental Protection Agency EPR-SR 1595 Wynkoop Street Denver, CO 80202

Attn.: Ms. Christina Progess

contractor is reported separately.

Subject: OU3 RI/FS of the Libby Asbestos Site

Monthly Progress Report - September 2011

This progress report describes work completed during the month of September 2011, in accordance with Section IX of the Administrative Settlement Agreement and Order on Consent for Remedial Investigation/Feasibility Study dated September 2007. A discussion of the actions taken, sampling results, planned activities, modifications, problems encountered, potential issues, anticipated delays, and solutions developed is provided below. Information by

<u>MWH</u>

The following is a summary of the actions taken and progress made during September 2011.

#### A. ACTIONS TAKEN

- Concluded Phase IV B bi-weekly syringe and grab sample collection at the Parshall flumes mounted in Rainy Creek at LRC-6, LRC-2, CC-2 and from the Tailings Pond location on September 20, 2011.
- Performed site tour with remediation engineers from the MWH Boise, Idaho office.
- Collected and shipped duff from the mine-site on September 30 in accordance with the final *Estimation of Asbestos Levels in Smoke Using a Burn Chamber* work plan.

### **B. SAMPLING RESULTS**

Validated Phase IV B analytical results have not yet been received.

## C. PLANNED ACTIVITIES FOR NEXT TWO MONTHS

The following tasks are scheduled to be performed over the next two months.

Participate in teleconferences and other meetings as requested by EPA.

# D. MODIFICATIONS/PROBLEMS ENCOUNTERED/POTENTIAL ISSUES/ANTICIPATED DELAYS/SOLUTIONS DEVELOPED/IMPLEMENTED

None

Robert J. Medler Director Remedium Group, Inc.

A Subsidiary of W. R. Grace & Co. 6401 Poplar Ave., Suite 301 Memphis, TN 38119-4840

Tel: (901) 820-2024 Fax: (901) 820-2061

Email: Robert.J.Medler@grace.com

### **Golder Associates**

The following is a summary of the actions taken and progress made during September 2011.

#### A. ACTIONS TAKEN

- Participated in readiness call with EPA.
- Conducted pool assessment at OU3.
- Ongoing project management activities including subcontractor management, client communications, filing and financials.

### **B. PLANNED ACTIVITIES FOR NEXT TWO MONTHS**

The following tasks are scheduled to be performed over the next two months:

 Participate in BTAG meeting (Helena MT) to discuss bioassay challenges, need for avian study.

# C. MODIFICATIONS/PROBLEMS ENCOUNTERED/POTENTIAL ISSUES/ANTICIPATED DELAYS/SOLUTIONS DEVELOPED/IMPLEMENTED

• None

If you have any questions regarding this progress report please contact Bob Marriam at (901) 820-2023.

Sincerely,

Robert J. Medler Project Coordinator Remedium Group, Inc.

Robert & Mede

cc: Michael DeDen – MWH
Lynne Gardner – Grace
John Garr – MWH
Robert Marriam – Grace
Sue Robinson – Golder
John Podolinsky – Montana DEQ
Rebecca Thomas – EPA

November 14, 2011

U.S. Environmental Protection Agency EPR-SR 1595 Wynkoop Street Denver, CO 80202

Attn.: Ms. Christina Progess

Subject: OU3 RI/FS of the Libby Asbestos Site

Monthly Progress Report - October 2011

Robert J. Medler Director Remedium Group, Inc.

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Tel: (901) 820-2024 Fax: (901) 820-2061

Email: Robert.J.Medler@grace.com

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#### **MWH**

The following is a summary of the actions taken and progress made during October 2011.

#### A. ACTIONS TAKEN

 Ceased flow measurement recording at stations CC-02, LRC-02 and LRC-06 on October 16 and removed the ISCO samplers/recorders for the winter.

## **B. SAMPLING RESULTS**

• Validated Phase IV B analytical results have not yet been received.

## C. PLANNED ACTIVITIES FOR NEXT TWO MONTHS

The following tasks are scheduled to be performed over the next two months.

• Participate in teleconferences and other meetings as requested by EPA.

# D. MODIFICATIONS/PROBLEMS ENCOUNTERED/POTENTIAL ISSUES/ANTICIPATED DELAYS/SOLUTIONS DEVELOPED/IMPLEMENTED

None

#### **Golder Associates**

The following is a summary of the actions taken and progress made during October 2011.

#### A. ACTIONS TAKEN

- Worked on Libby habitat parameter data analysis and draft data report preparation.
- Continuing Project Management activities including project filing, routine client conference calls, and project financials.

#### B. PLANNED ACTIVITIES FOR NEXT TWO MONTHS

The following tasks are scheduled to be performed over the next two months:

- Submit draft habitat parameter data report to Remedium and EPA (December 2011).
- Attend BTAG meeting to present habitat data; discuss bioassay (fish, amphibian) challenges; Habitat Suitability Index modeling; bird asbestos sensitivity.

## C. MODIFICATIONS/PROBLEMS ENCOUNTERED/POTENTIAL

#### ISSUES/ANTICIPATED DELAYS/SOLUTIONS DEVELOPED/IMPLEMENTED

 Fiber loss observed during asbestos ampoule preparation and during Pilot Trout Study may affect whether the planned bioassay program (trout, amphibian) can proceed (BTAG to discuss).

If you have any questions regarding this progress report please contact Bob Marriam at (901) 820-2023.

Sincerely,

Robert J. Medler Project Coordinator Remedium Group, Inc.

cc: Michael DeDen – MWH

Robert & Mede

Lynne Gardner – Grace

John Garr - MWH

Robert Marriam - Grace

Sue Robinson - Golder

John Podolinsky – Montana DEQ

Rebecca Thomas - EPA

December 15, 2011

U.S. Environmental Protection Agency EPR-SR 1595 Wynkoop Street Denver, CO 80202

Attn.: Ms. Christina Progess

Subject: OU3 RI/FS of the Libby Asbestos Site

Monthly Progress Report - November 2011

Director
Remedium Group, Inc.

A Subsidiary of W. R. Grace & Co. 6401 Poplar Ave., Suite 301 Memphis, TN 38119-4840

Tel: (901) 820-2024 Fax: (901) 820-2061

Robert J. Medler

Email: Robert.J.Medler@grace.com

This progress report describes work completed during the month of November 2011, in accordance with Section IX of the Administrative Settlement Agreement and Order on Consent for Remedial Investigation/Feasibility Study dated September 2007. A discussion of the actions taken, sampling results, planned activities, modifications, problems encountered, potential issues, anticipated delays, and solutions developed is provided below. Information by contractor is reported separately.

#### **MWH**

The following is a summary of the actions taken and progress made during November 2011.

#### A. ACTIONS TAKEN

None.

#### B. SAMPLING RESULTS

• Validated Phase IV B analytical results have not yet been received.

### C. PLANNED ACTIVITIES FOR NEXT TWO MONTHS

The following tasks are scheduled to be performed over the next two months.

- Participate in BTAG meeting on December 8 and other meetings and teleconferences as requested by EPA.
- Complete the work plan for removal of vermiculite/LA material below the Amphitheater for EPA review and comment. Removal work will be done in Spring 2012, once snowmelt has occurred and machinery can operate on the ground.

# <u>D. MODIFICATIONS/PROBLEMS ENCOUNTERED/POTENTIAL</u> ISSUES/ANTICIPATED DELAYS/SOLUTIONS DEVELOPED/IMPLEMENTED

None

#### **Golder Associates**

The following is a summary of the actions taken and progress made during November 2011.

#### A. ACTIONS TAKEN

- Initial review of Libby habitat parameter data analysis and draft data report; and
- Continuing Project Management activities including project filing, routine client conference calls, and project financials.

## B. PLANNED ACTIVITIES FOR NEXT TWO MONTHS

The following tasks are scheduled to be performed over the next two months:

- Submit draft habitat parameter data report to Remedium and EPA (December 2011);
- Attend BTAG meeting to present habitat data; discuss bioassay (fish, amphibian) challenges; Habitat Suitability Index modeling; bird asbestos sensitivity.
- Undertake planning activities for 2012 ecological field studies (fish, amphibian) and bioassay (amphibian).

# C. MODIFICATIONS/PROBLEMS ENCOUNTERED/POTENTIAL ISSUES/ANTICIPATED DELAYS/SOLUTIONS DEVELOPED/IMPLEMENTED

 Fiber loss observed during asbestos ampoule preparation and during Pilot Trout Study may affect whether the planned bioassay program (trout, amphibian) can proceed (BTAG to discuss).

If you have any questions regarding this progress report please contact Bob Marriam at (901) 820-2023.

Sincerely,

Robert J. Medler Project Coordinator Remedium Group, Inc.

Robert & Mede

cc: Michael DeDen – MWH
Lynne Gardner – Grace
John Garr – MWH
Robert Marriam – Grace
Sue Robinson – Golder
John Podolinsky – Montana DEQ
Rebecca Thomas – EPA

January 13, 2012

U.S. Environmental Protection Agency EPR-SR 1595 Wynkoop Street Denver, CO 80202

Attn.: Ms. Christina Progess

Subject: OU3 RI/FS of the Libby Asbestos Site

Monthly Progress Report - December 2011

Robert J. Medler Director Remedium Group, Inc.

A Subsidiary of W. R. Grace & Co. 6401 Poplar Ave., Suite 301 Memphis, TN 38119-4840

Tel: (901) 820-2024 Fax: (901) 820-2061

Email: Robert.J.Medler@grace.com

This progress report describes work completed during the month of December 2011, in accordance with Section IX of the Administrative Settlement Agreement and Order on Consent for Remedial Investigation/Feasibility Study dated September 2007. A discussion of the actions taken, sampling results, planned activities, modifications, problems encountered, potential issues, anticipated delays, and solutions developed is provided below. Information by contractor is reported separately.

#### **MWH**

The following is a summary of the actions taken and progress made during December 2011.

#### A. ACTIONS TAKEN

• Participated in BTAG teleconference on December 8, 2011.

#### B. SAMPLING RESULTS

• Validated Phase IV B analytical results have not yet been received.

### C. PLANNED ACTIVITIES FOR NEXT TWO MONTHS

The following tasks are scheduled to be performed over the next two months.

- Complete the work plan for removal of vermiculite/LA material below the Amphitheater for EPA review and comment. Removal work will be done in Spring 2012 once snowmelt has occurred and machinery can operate on the ground.
- Participate in meetings and teleconferences as requested by EPA.

# D. MODIFICATIONS/PROBLEMS ENCOUNTERED/POTENTIAL ISSUES/ANTICIPATED DELAYS/SOLUTIONS DEVELOPED/IMPLEMENTED

None

#### **Golder Associates**

The following is a summary of the actions taken and progress made during December 2011.

#### A. ACTIONS TAKEN

- Continued internal review (Golder, Remedium) of Libby Habitat Parameter Draft Data Report;.
- Preparation for Helena BTAG meeting (Habitat Parameter presentation; subconsultant coordination).
- Attended BTAG meeting in Helena with Remedium.
- Post BTAG meeting follow up.
- Submitted draft Libby Habitat Parameter Data Report to EPA.
- Continued Project Management activities including project filing, routine client conference calls, and project financials.

### B. PLANNED ACTIVITIES FOR NEXT TWO MONTHS

The following tasks are scheduled to be performed over the next two months:

- BTAG subgroup call to discuss/agree upon design parameters of amphibian (field, lab) and trout (field) studies for 2012.
- Prepare and submit outlines as needed by USEPA to use in preparing DQOs for Phase V Work Plan:
  - o Amphibian developmental field study design (with histology).
  - o *In situ* trout study design parameters (no histology).
  - o Lower Rainy Creek in situ trout fry search and collection (with histology).
  - Collection of larger fish from Tailings Pond for LA tissue analysis (human health risk assessment support).
- Review draft Phase V Work Plan prepared by USEPA.
- Conduct amphibian training and OU3/reference site reconnaissance.
- Get NorthWest ZooPath (Dr. Michael Garner) under subcontract to conduct all histology work.
- Study logistics planning.

# C. MODIFICATIONS/PROBLEMS ENCOUNTERED/POTENTIAL ISSUES/ANTICIPATED DELAYS/SOLUTIONS DEVELOPED/IMPLEMENTED

None at this time.

If you have any questions regarding this progress report please contact Bob Marriam at (901) 820-2023.

Sincerely,

Robert J. Medler Project Coordinator Remedium Group, Inc.

cc: Michael DeDen – MWH

Robert 9 Mede

Lynne Gardner – Grace John Garr – MWH

Robert Marriam – Grace Sue Robinson – Golder

John Podolinsky – Montana DEQ

Rebecca Thomas – EPA

February 15, 2012

U.S. Environmental Protection Agency EPR-SR 1595 Wynkoop Street Denver, CO 80202

Attn.: Ms. Christina Progess

Subject: OU3 RI/FS of the Libby Asbestos Site

Monthly Progress Report – January 2012

Robert J. Medler Director Remedium Group, Inc.

A Subsidiary of W. R. Grace & Co. 6401 Poplar Ave., Suite 301 Memphis, TN 38119-4840

Tel: (901) 820-2024 Fax: (901) 820-2061

Email: Robert.J.Medler@grace.com

This progress report describes work completed during the month of January 2012, in accordance with Section IX of the Administrative Settlement Agreement and Order on Consent for Remedial Investigation/Feasibility Study dated September 2007. A discussion of the actions taken, sampling results, planned activities, modifications, problems encountered, potential issues, anticipated delays, and solutions developed is provided below. Information by contractor is reported separately.

#### MWH

The following is a summary of the actions taken and progress made during January 2012.

#### A. ACTIONS TAKEN

- Produced draft work plan for removal of vermiculite waste material from south of the Amphitheater and placement of the waste material at the top of the mine site.
- Provided historic surface-water flow volume and flow velocity data to Golder Associates for fish study.
- Issued Draft Technical Memorandum summarizing information used to identify storm events for Water Management Alternatives being developed for Libby OU-3.
- Provided EPA with a CD containing LIDAR data for the elevations and imagery of the OU-3 drainage area.

#### B. SAMPLING RESULTS

Validated Phase IV B analytical results have not yet been received.

#### C. PLANNED ACTIVITIES FOR NEXT TWO MONTHS

The following tasks are scheduled to be performed over the next two months.

- Participate in meetings and teleconferences as requested by Remedium Group and EPA
- Finalize design criteria for sorm events.

# D. MODIFICATIONS/PROBLEMS ENCOUNTERED/POTENTIAL ISSUES/ANTICIPATED DELAYS/SOLUTIONS DEVELOPED/IMPLEMENTED

None

## **Golder Associates**

The following is a summary of the actions taken and progress made during January 2012.

## A. ACTIONS TAKEN

- Development of trout and amphibian field study outlines.
- Additional updating of amphibian lab bioassay protocol.
- BTAG conference call with Remedium and EPA.
- Montana Fish Wildlife and Parks permit application.
- Amphibian training and field reconnaissance planning.
- Trout study pre-planning activities.
- Continuing Project Management activities including project filing, routine client conference calls, subcontractor management and project financials.

#### B. PLANNED ACTIVITIES FOR NEXT TWO MONTHS

The following tasks are scheduled to be performed over the next two months:

- Nautilus Environmental under subcontract to support Golder as needed on eyed egg field study.
- Submit permit application to Montana Fish Wildlife and Parks for field study and collection activities.
- Order equipment and build cages for field studies.
- Identify reference ponds for amphibian field study.
- Review and comment on draft Phase V Work Plan to be prepared by USEPA.
- Prepare detailed study Standard Operating Procedures (SOPs) for amphibian and trout field studies to support SAP development.
- Finalize amphibian sediment testing bioassay protocol.
- Conduct amphibian training and OU3/reference site reconnaissance activity.
- Continue with field study logistics and planning.

# C. MODIFICATIONS/PROBLEMS ENCOUNTERED/POTENTIAL ISSUES/ANTICIPATED DELAYS/SOLUTIONS DEVELOPED/IMPLEMENTED

None at this time.

If you have any questions regarding this progress report please contact Bob Marriam at (901) 820-2023.

Sincerely,

Robert J. Medler Project Coordinator Remedium Group, Inc.

cc: Michael DeDen – MWH

Robert & Mede

Lynne Gardner – Grace

John Garr – MWH

Robert Marriam – Grace Sue Robinson – Golder

John Podolinsky – Montana DEQ

Rebecca Thomas – EPA

March 14, 2012

U.S. Environmental Protection Agency EPR-SR 1595 Wynkoop Street Denver, CO 80202

Attn.: Ms. Christina Progess

Subject: OU3 RI/FS of the Libby Asbestos Site

Monthly Progress Report – February 2012

Robert J. Medler Director Remedium Group, Inc.

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Email: Robert.J.Medler@grace.com

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#### **MWH**

The following is a summary of the actions taken and progress made during February 2012.

### A. ACTIONS TAKEN

- Produced draft work plan for removal of vermiculite waste material from south of the Amphitheater and placement of the waste material at the top of the mine site.
- Provided historic (Phase I and II) sediment LA concentration data for use in fish study by Golder Associates.
- Provided logistics recommendations to Golder Associates for upcoming long-term field season at OU3.
- Submitted draft Design Criteria Technical Memorandum (TM) to EPA for review and comment.

### **B. SAMPLING RESULTS**

• Phase IV B analytical results have not yet been validated nor published.

#### C. PLANNED ACTIVITIES FOR NEXT TWO MONTHS

The following tasks are scheduled to be performed over the next two months.

- Produce draft final work plan for removal of vermiculite waste material from south of the Amphitheater and placement of the waste material at the top of the mine site.
- After Remedium and EPA review and approve the draft final, produce and issue the final work plan.

- Execute the removal of waste material from below the Amphitheater when snow melt and site conditions allow.
- Participate in meetings and teleconferences as requested by Remedium Group and EPA.
- Teleconference with EPA to discuss comments on draft Design Criteria TM.
- Submit revised draft Design Criteria TM to State of Montana for review and comment.
- Teleconference with State of Montana to discuss comments.
- Finalize Design Criteria TM.

# <u>D. MODIFICATIONS/PROBLEMS ENCOUNTERED/POTENTIAL</u> ISSUES/ANTICIPATED DELAYS/SOLUTIONS DEVELOPED/IMPLEMENTED

None

#### **Golder Associates**

The following is a summary of the actions taken and progress made during February 2012.

#### A. ACTIONS TAKEN

- Submitted permit application to Montana Fish Wildlife Parks for 2012 field studies.
- Updated 2012 field and lab study outlines for EPA use in Phase V-B SAP.
- Initiated identification of amphibian field study reference areas.
- Responded to questions by EPA on lab and field study outline.
- Initiated field study logistical planning (scheduling and staffing).
- Continued amphibian training and field reconnaissance planning.
- Initiated 2012 field study mobilization activities (equipment ordering).
- Continued Project Management activities including project filing, routine client conference calls, getting Nautilus Environmental under subcontract.

#### B. PLANNED ACTIVITIES FOR NEXT TWO MONTHS

The following tasks are scheduled to be performed over the next two months:

- Continue mobilization activities (order equipment, build cages, etc.) for 2012 field studies.
- Submit final amphibian test protocol to EPA.
- Finalize selection of reference ponds for amphibian field study.
- Review and comment on draft Phase V Work Plan (DQOs, SAP text) to be prepared by USEPA.
- Prepare detailed study Standard Operating Procedures (SOPs) for amphibian and trout field studies to support SAP development.

- Conduct amphibian training, and OU3/reference site reconnaissance activity (trout, amphibian).
- Continue with all other field study logistical and planning activities.
- Readiness call with EPA on field studies.
- Initiate mobilization to Libby, Montana to start field studies (late April 2012).

## C. MODIFICATIONS/PROBLEMS ENCOUNTERED/POTENTIAL ISSUES/ANTICIPATED DELAYS/SOLUTIONS DEVELOPED/IMPLEMENTED

None at this time.

If you have any questions regarding this progress report please contact Bob Marriam at (901) 820-2023.

Sincerely,

Robert J. Medler **Project Coordinator** Remedium Group, Inc.

Robert & Mede

Michael DeDen - MWH cc: Lynne Gardner - Grace John Garr - MWH Robert Marriam - Grace Sue Robinson - Golder John Roldan - MWH John Podolinsky – Montana DEQ

Rebecca Thomas - EPA